Yellowstone Cutthroat Trout

Oncorhynchus clarki bouvieri

Actinopterygii — Salmoniformes — Salmonidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide: Imperiled subspecies (G4T2)

Statewide: Imperiled (S2) ESA: No status

USFS: Region 1: Sensitive; Region 4: No status BLM: Rangewide/Globally imperiled (Type 2)

IDFG: Game fish

BASIS FOR INCLUSION

Reduced distribution and habitat degradation in Idaho. Current population estimates, number of populations, and range extent indicate this subspecies is likely more secure in the State than the rangewide status indicates.

TAXONOMY

Cutthroat trout were originally described by Richardson in 1836 (Nelson et al. 2004). Currently, they are placed in the Oncorhynchus genus in the Salmonidae family. According to Behnke (2002), Yellowstone cutthroat trout is 1 of 14 subspecies of cutthroat trout found in Western North America. Closely related subspecies with similar appearances are the Westslope to the northwest and Bonneville to the south.

DISTRIBUTION AND ABUNDANCE

Native distribution of Yellowstone cutthroat trout includes the Yellowstone River drainage in Montana, Wyoming and the upper Snake River drainage in Idaho, Wyoming, Utah and Nevada (Behnke 2002). Meyer et al. (In press) estimated about 2.2 million cutthroat trout in Yellowstone cutthroat trout range in Idaho. Estimates did not include all areas containing Yellowstone cutthroat trout or all size classes.

POPULATION TREND

Historic abundance is unknown, however there has been substantial loss of habitat and resultant population decline from historical levels. May et al. (2003) estimated that Yellowstone cutthroat trout currently inhabit about 63% of their historic range in Idaho. The current population estimate is 2.2 million in 70 subpopulations within 23,000 km (14,375 mi) sampled (Meyer et al. in prep.). Populations that have been monitored over the last 10–20 years indicate stable densities (Meyer et al. 2001). The rangewide rank (G4T2) was last updated in 1995. This ranking did not include the most recent inventory and trend data from Idaho, Montana, and Wyoming and does not accurately reflect the current status and knowledge of the subspecies. Using the most recent data yields a statewide rank of S3.

HABITAT AND ECOLOGY

Yellowstone cutthroat trout normally require well–oxygenated water; clean, well–sorted gravels with minimal fine sediments for successful spawning; temperatures <21 C (<70 F), and a complexity of instream habitat structure such as large woody debris and overhanging banks for cover. There are both adfluvial and fluvial populations of Yellowstone cutthroat trout (Behnke 2002). Fish in stream populations in small headwater systems may live 3–5 years and attain a length of 23–25 cm (9–10 in). In lakes, fish can live 9–10 years and grow to 61 cm (24 in) and 3 kg (6 lbs). Spawning occurs in the spring and can range from April to July depending on water temperatures. Diets consist primarily of aquatic and terrestrial insects and other invertebrates.

ISSUES

Reduction in historically occupied range, habitat loss, fragmentation of current habitat, and isolation of existing populations, and hybridization with rainbow trout and other subspecies of cutthroat trout are the principal issues facing Yellowstone cutthroat trout (May, et al., 2003).

RECOMMENDED ACTIONS

Continue programs such as (1) population distribution and trend monitoring program; (2) sterile fish stocking program in areas where Yellowstone cutthroat trout and introduced hatchery fish overlap; (3) angler harvest programs to benefit Yellowstone cutthroat trout; (4) monitoring genetic purity of Yellowstone cutthroat populations; (5) reestablishment of metapopulation connectivity; and (6) water flow management in the South Fork of the Snake River to benefit Yellowstone cutthroat trout. Details on restoration activities for conservation of Yellowstone cutthroat trout are in May et al. (2003).

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